

PATENT

Atty Docket No.: 200403365-1

App. Ser. No.: 10/830,217

REMARKS

Favorable reconsideration of this application is respectfully requested in view of the amendments above and the following remarks. Claims 1-36 are pending of which claims 1, 23, 26, 29 and 34 are independent. Claims 35 and 36 are newly added.

Claims 1, 2, 12, 13, 16, 18, 21-23, 25 and 29-30 were rejected under 35 U.S.C. §102(a) as being anticipated over Orenstien. (6,804,632).

Claims 4, 5, 24, 25 and 34 were rejected under 35 U.S.C. §103(a) as being unpatentable over Orenstien in view of Cai (6,501,999).

Independent claim 26 and claim 27 were rejected under 35 U.S.C. §103(a) as being unpatentable over Singh (2003/0147369).

These rejections are respectfully traversed for the reasons stated below.

Claims 3, 6-11, 14, 15, 17, 19, 20, 28 and 31-33 were indicated as including allowable subject matter.

Allowable Subject Matter

The Examiner is thanked for indicating that claims 3, 6-11, 14, 15, 17, 19, 20, 28 and 31-33 include allowable subject matter.

Drawings and IDS

The Examiner is requested to indicate whether drawings filed with the application on 4/23/04 are accepted in the next communication.

The Examiner is thanked for considering all the references cited in the IDS of 4/23/04.

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Claim Rejection Under 35 U.S.C. §102

The test for determining if a reference anticipates a claim, for purposes of a rejection under 35 U.S.C. § 102, is whether the reference discloses all the elements of the claimed combination, or the mechanical equivalents thereof functioning in substantially the same way to produce substantially the same results. As noted by the Court of Appeals for the Federal Circuit in *Lindemann Maschinenfabrick GmbH v. American Hoist and Derrick Co.*, 221 USPQ 481, 485 (Fed. Cir. 1984), in evaluating the sufficiency of an anticipation rejection under 35 U.S.C. § 102, the Court stated:

Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim.

Therefore, if the cited reference does not disclose each and every element of the claimed invention, then the cited reference fails to anticipate the claimed invention and, thus, the claimed invention is distinguishable over the cited reference.

Claims 1, 2, 12, 13, 16, 18, 21-23, 25 and 29-30 were rejected under 35 U.S.C. §102(a) as being anticipated over Orenstien.

Claim 1 recites, "I/O devices connected to the computer system." The Examiner is believed to be taking an unreasonably broad interpretation of I/O devices that is outside the conventional meaning of I/O devices as is known in the art and that is outside the specification.

In particular, Orenstein discloses a plurality of processing units and a monitor to obtain power consumption values for the processing units. See Abstract. The processing units are in cores in a multi-core processor. See column 2, lines 39-45. Thus, Orenstein

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discloses determining power consumption values for a processor, rather than for a plurality of input/output devices connected to a computer system.

Furthermore, claim 1 recites I/O devices connected to a computer system. The processing units in the multi-core processor are the computer system and thus they cannot be connected to a computer system.

Thus, Orenstein fails to teach all the features of claim 1 and claims 1-22 are believed to be allowable.

Furthermore, newly added claims 35 and 36 recite a definition of I/O devices taken from the specification on page 4, last paragraph. Claim 35 recites, "wherein each of the I/O devices comprise a piece of hardware, operable to be used in combination with software, providing data to a computer system and/or for receiving data from the computer system." Claim 36 recites, "wherein the I/O devices comprise at least one of a keyboard, a joystick, a mouse, a touch pad and a display." These features are not taught or suggested by the prior art of record and thus claims 35 and 36 are believed to be allowable.

Orenstien also fails to teach many features of the claims dependent on claim 1. Orenstien fails to teach identifying top power consuming I/O devices, as recited in claim 2. The rejection alleges the features of claim 2 are recited in column 5, lines 16-20, column 7, lines 5-8 and column 8, lines 41-43 of Orenstein. In column 5, lines 16-20, Orenstein discloses detecting when power consumed by one core is very high when compared to a second core. Thus, Orenstein discloses identifying a single high power consumption core rather than a plurality of top power consuming cores. Column 7, lines 5-8 and column 8, lines 41-43 of Orenstein also fail to teach identifying top power consuming I/O devices.

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Claim 16 recites a constraint on reducing power consumption and reducing power consumption if the constraint can be maintained. The rejection alleges the features of claim 16 are taught in column 1, lines 6-18. Column 1, lines 6-18 discusses resultant thermal issues due to increased power consumption. However, the thermal issues are not a constraint on reducing power consumption. Instead, the thermal issues are the reason why power consumption must be reduced. For example, on page 21, lines 3-9 of the Applicant's specification, an example of a constraint is that a display cannot be placed in a low-power mode based on a user preference. Orenstien fails to disclose any such constraints on reducing power consumption.

Claim 18 recites generating a usage model from profiling usage of the I/O devices. The rejection alleges this feature is taught by the operational activity in Orenstien. However, the operational activity is profiling, rather than a usage model. No model is generated in Orenstien.

Claim 21 recites generating a power model from profiling power consumption of the I/O devices. Orenstein discloses profiling but fails to teach generating a model from the profiling.

Independent claim 23 recites I/O devices not taught by Orenstien. Also, claim 23 recites profiling usage patterns to establish a usage model and profiling power consumption to establish a power model. Orenstien fails to teach a usage model and a power model. Accordingly, claims 23-25 are believed to be allowable.

Independent claim 29 and claim 30 are believed to be allowable because Orenstien fails to teach I/O devices connected to a computer system and identifying top power consuming devices.

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Claim Rejections Under 35 U.S.C. §103(a)

The test for determining if a claim is rendered obvious by one or more references for purposes of a rejection under 35 U.S.C. § 103 is set forth in MPEP § 706.02(j):

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaack*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Therefore, if the above-identified criteria are not met, then the cited reference(s) fails to render obvious the claimed invention and, thus, the claimed invention is distinguishable over the cited reference(s).

Claims 4, 5, 24, 25 and 34 were rejected under 35 U.S.C. §103(a) as being unpatentable over Orenstien in view of Cai.

Independent claim 26 and claim 27 were rejected under 35 U.S.C. §103(a) as being unpatentable over Singh.

Claims 4, 5, 24, 25 are believed to be allowable for at least the reasons their respective independent claims are believed to be allowable.

Independent claim 26 recites an I/O device connected to a computer system. The rejection appears to allege the processor in the computer system of Singh is the claimed I/O device. However, the processor is not an I/O device connected to a computer system. Furthermore, Singh fails to teach or suggest the claimed power model and usage model. Accordingly, claims 26-28 are believed to be allowable.

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Independent claim 34 is also believed to be allowable over Orenstien in view of Cai because Orenstien in view of Cai fails to teach or suggest I/O devices connected to a computer system. Furthermore, claim 34 recites "reduce power consumption in response to remaining battery life falling below a threshold. Orenstien in view of Cai fails to teach or suggest determining a remaining battery life. Accordingly, claim 34 is believed to be allowable.

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Conclusion


In light of the foregoing, withdrawal of the rejections of record and allowance of this application are earnestly solicited.

Should the Examiner believe that a telephone conference with the undersigned would assist in resolving any issues pertaining to the allowability of the above-identified application, please contact the undersigned at the telephone number listed below. Please grant any required extensions of time and charge any fees due in connection with this request to deposit account no. 08-2025.

Respectfully submitted,

Dated: December 18, 2006

By



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